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TO:	COMPANY:
Examiner: WARTALOWICZ, Paul A. Art Unit 1754	U.S. Patent and Trademark Office
FAX NUMBER: 571-273-8300	PHONE NUMBER:

From: Christopher W. Brody

Date: September 27, 2006

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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that the attached **Request for Reconsideration** for U.S. Serial No. **10/803,963** is being facsimile-transmitted to the U.S. Patent and Trademark Office on the date shown below.

Respectfully submitted,

Christopher W. Brody, Reg. No. 33,616

Date: September 27, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Yano et al.	Art Unit: 1754
Application No.: 10/803,963	Examiner: Wartalowicz, P. A.
Filed: March 19, 2004	Attorney Dkt. No.: 12065-0010

For: PEROVSKITE COMPLEX OXIDE AND METHOD OF PRODUCING THE SAME

REQUEST FOR RECONSIDERATION

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated June 27, 2006, Applicants respectfully request reconsideration of the rejections of the claims. The rejections are traversed under their respective headings, with the prior art rejections being addressed initially.

United States Patent No. 6395675 to Suga et al. (Suga)

Claims 1, 2, 5-9, 12, and 15 stand rejected under 35 U.S.C. § 102(b) based on Suga. In review, claim 1 defines a step of heat-treating a precursor substance containing at least one rare earth element and at least one transition metal element to generate a perovskite complex oxide phase. The precursor substance is further characterized as an amorphous substance with a noble metal element incorporated therein.

Claim 2 further defines the manner in which the noble metal element is incorporated into the precursor substance.

In the rejection, the Examiner characterizes the teachings of Suga as making a catalyst of a mixed oxide containing a noble element. The method of Suga is further characterized as:

1) forming an aqueous slurry of a mixed oxide and a porous carrier/noble metal powder combination; and

2) heat treating the slurry to a temperature of 400-900 °C, which is then inherently dried.

As importantly, the Examiner contends that the mixed oxide, which is prepared by reacting an aqueous solution of salts of the rare earth metal and the transition metal and a precipitant, is the amorphous substance.

Applicants contend that Suga does not anticipate claims 1 and 2 for the reason that the processing of Suga does not teach the steps of claims 1 and 2 as is required to make a rejection under 35 U.S.C. § 102(b).

Suga teaches, in col. 5, lines 5-27 and 48-59, that the aqueous slurry contains first and second powders. The first powder is a porous carrier with a noble metal powder loaded onto it. The second powder is a first double oxide powder represented by the formula (1) that contains the elements of Ln, A, and B, see col. 1, lines 59-61. The first double oxide powder is called a perovskite complex oxide which is not amorphous but crystalline as shown in an x-ray diffraction method to have peaks.

The first double oxide powder is made by baking of the precipitate, see col. 5, line 23. The baking changes the second powder into the crystallized perovskite, and it is this non-amorphous powder that is heat treated in the slurry with the first powder.

While the Examiner could contend that the precipitate that is to be baked and then added to the slurry could be amorphous, this contention still does not support the rejection of claim 1. Suga teaches baking the precipitate to form the precursor prior to combining the baked precipitate, i.e., the crystalline perovskite, with the noble metal powder in the slurry. This baking step undoubtedly produces a crystalline perovskite, which cannot be said to be the amorphous precursor called for in claim 1. While the Examiner contends that the mixed oxide is the "amorphous substance", there is no reasoning in the rejection based on Suga to support this contention.

So, even though Suga does teach a heat treating step, the precursor substance being heat treated is not the same as that claimed, and Suga cannot establish a *prima facie* case of anticipation against claims 1 and 2.

In actuality, Suga discloses two baking steps. The first baking step is described above to form the first double oxide powder, which is done in the absence of the noble metal powder. The second baking step involves heating the slurry of the double oxide powder and the porous carrier powder/noble metal powder combination in the presence of the catalytic coating of the catalyst formed on the substrate, see col. 5, lines 50-55.

As argued above, the second baking step which treats the slurry cannot be considered to read on claims 1 and 2 since the precursor substance is not amorphous; it is the crystalline perovskite.

The Examiner cannot contend that the first baking step reads on claims 1 and 2 since this baking step does not involve the noble metal powder, it is only used to form the perovskite that is combined with the porous carrier/noble metal combination in slurry form for the second baking step.

Turning back to the pages 2 and 3 of the specification, a goal in the art is to simultaneously have a high specific area of a perovskite complex oxide and solid dissolution of an active metal component, i.e., a noble metal, in the perovskite structure. To achieve this aim, Suga adopts the precursor as a slurry, which contains the perovskite powder and a porous carrier that carries the noble metal powder. In contrast, the present invention employs a different technique to increase surface area and dissolution of the active metal in the perovskite structure. That is, the precursor material is an amorphous one that incorporates the noble metal therein, and this aim is clearly shown by the Examples set forth in the specification.

In light of the above, it is clear that the feature of the amorphous precursor and the incorporation of the noble metal in it is not taught or suggested by Suga, and the rejection of claims 1 and 2 based on 35 U.S.C. § 102(b) must be withdrawn.

Moreover, there is no basis to conclude obviousness given the teachings of Suga, and any contention in a subsequent action can only be based on the hindsight reconstruction of the prior art in light of Applicants' disclosure.

Applicants further contend that claim 2 is separately patentable over Suga. As stated above, claim 2 calls for slurrying of the amorphous substance in a solvent containing ions of the noble metal element, and then drying the slurry to impregnate

the noble metal into the amorphous substance. The dried slurry as a solid is then subjected to the heat treatment. In Suga, the slurry of the crystalline double oxide powder and the powder of the noble metal loaded onto the porous carrier is taught. However, Suga is silent on dispersing the double oxide powder, the alleged amorphous substance in the rejection, in a solvent that dissolves noble metal elements to form ions. In fact, the rejection does not even address the limitations of claim 2 and this alone means that the rejection is flawed and either must be remade with proper support or withdrawn.

Since Suga does not teach the particulars of claim 2, it cannot be said to establish a *prima facie* case of anticipation. Lacking a basis to allege anticipation, the Examiner can only further reject claim 2 under 35 U.S.C. § 103(a). As with claim 1 though, there is no basis to draw such a conclusion absent hindsight, and any further rejection based on obviousness could not be sustained on appeal.

Suga and United States Patent No. 5,503,815 to Ishii et al.

The combination of Suga with the secondary reference to United States Patent No. 5,503,815 to Ishii et al. is noted. The Examiner cites Ishii et al. to allege that the control over pH is obvious. Regardless of the propriety of this stance, Ishii does not supply the missing features of Suga with respect to the amorphous substance of claim 1, the incorporation of the noble metal therein, and the subsequent heat treatment. Thus, even if Ishii et al. were combined with Suga, the features of claims 1 and 2 are still lacking.

Suga and United States Published Patent Application No. 2002/0092812 to Stamires et al.

In this rejection, claims 3, 4, 6, and 12-15 are rejected based on the combination of Suga and Stamires et al. (Stamires). Here, the Examiner alleges that since the amorphous substance is a precipitation product, and that the double oxide powder of Suga is also a precipitated product, this similarity supports the contention that Suga teaches the claimed amorphous substance. This position is refuted by the argument above that regardless of the form of the precipitate of Suga, that precipitate is baked to form a crystalline perovskite, and the crystalline perovskite that is incorporated with a noble metal powder to be heated cannot read on the steps of claims 1 and 2 wherein the amorphous substance with the noble metal powder incorporated with it is heat treated.

As an alternative, the Examiner takes the position that:

1) if Suga does not teach an amorphous powder such is taught by Stamires; and

2) it would be obvious to modify Suga with Stamires and arrive at the invention. This conclusion of obviousness is in error since Stamires and Suga are not related to the point that one of skill in the art would modify Suga as alleged in the rejection.

The issue of obviousness is whether one would modify Suga by using an amorphous precursor in place of the crystalline double oxide and incorporate a noble metal into such a precursor, and then heat treat the noble metal-containing amorphous precursor. Stamires has nothing to do with perovskites and cannot be used to modify Suga as alleged in the rejection. Stamires is concerned with forming crystalline anionic-

clay bodies from sources comprising a trivalent metal source and a divalent metal source. A precursor mixture containing a liquid, the trivalent metal source and/or the divalent metal source, and optionally a compound of a noble metal, see paragraph [0055], line 5, is shaped into a body, and the shaped body is heated and aged to form the crystalline anionic-clay bodies. While Stamires may teach an amorphous precursor, this fact alone does not lead one to the modification of Suga alleged in the rejection. Applicants are not claiming the first to make an amorphous precursor. However, Applicants are the first to use the precursor in the manner claimed in claims 1 and 2.

As pointed out above, Stamires is totally unrelated to forming perovskite and this alone precludes taking select teachings of Stamires and employing them in the process of Suga. The Examiner is making a combination rejection without the proper motivation to modify Suga, and this rejection must be withdrawn.

OBVIOUSNESS-TYPE DOUBLE PATENTING

In the Office Action, the Examiner contends that claim 1 is obvious over claim 1 of related application serial no. 10/809,709 (the '709 application) when combined with Suga. Applicants traverse this rejection on the grounds that the claims are not obvious variants of each other. The instant claim 1 defines a method wherein a noble metal is incorporated with the amorphous substance prior to heat treating. Claim 1 of the '709 application defines a method wherein the amorphous substance is produced via precipitation and a reducing agent. These two claims are similar in that an amorphous substance is heat treated, but this is where the similarity ends.

While it is not totally clear as to the Examiner's reasoning when considering the second last paragraph on page 3 of the Detailed Action, it is believed that the Examiner is saying that one would be taught to incorporate a noble metal into the amorphous substance in the process of claim 1 of the '709 application given Suga. This stance is incorrect since Suga does not teach such an incorporation. As pointed out above, the noble metal of Suga is introduced into the slurry with the already formed crystalline double oxide for heating and application onto the catalyst. There is no incorporation of the noble metal into an amorphous precursor in Suga and there can therefore be no motivation to modify the method of the '709 application as alleged in the obviousness-type double patenting rejection. Consequently, the obviousness-type double patenting rejection must be withdrawn.

SUMMARY

It is respectfully contended that the rejections set forth in the outstanding Office Action have been overcome by the arguments made above. Suga does not establish a *prima facie* case of anticipation nor can it be used to obviate claims 1 and 2. Claim 2 is further separately patentable over Suga based on this patent's failure to teach or suggest the claimed steps. The secondary references do not supply the deficiencies in Suga, especially Stamires. Lastly, claim 1 is not obvious in light of Suga and the '709 application.

Accordingly, the Examiner is respectfully requested to examine this application and pass all pending claims onto issuance.

Application No.: 10/808,963

If the Examiner believes that an interview would be helpful in expediting the allowance of this application, the Examiner is requested to telephone the undersigned at 202-835-1873.

The above constitutes a complete response to all issues raised in the Office Action dated June 27, 2006.

Again, reconsideration and allowance of this application is respectfully requested.

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 50-1088.

Respectfully submitted,

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